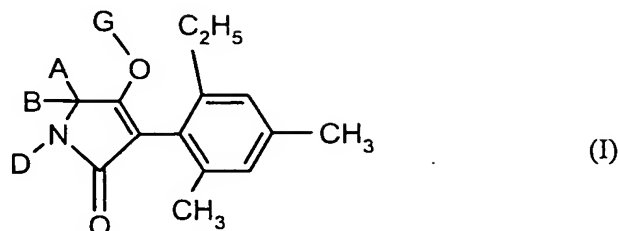


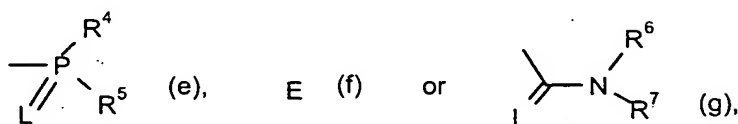
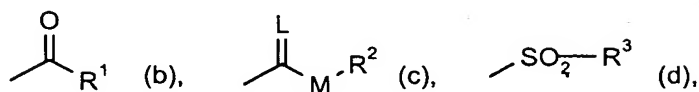
Patent claims

1. Compounds of the formula (I)



in which

- 5 G represents one of the groups



in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur,

- 10 M represents oxygen or sulphur,

R¹ represents in each case optionally substituted alkyl, alkenyl, alkoxyalkyl, alkylthioalkyl or polyalkoxyalkyl or represents in each case optionally halogen-, alkyl-, or alkoxy-substituted cycloalkyl or heterocyclyl or represents in each case optionally substituted phenyl, phenylalkyl, phenylalkenyl or heteroaryl,

- 15 R² represents in each case optionally halogen-substituted alkyl, alkenyl, alkoxyalkyl or polyalkoxyalkyl or represents in each case optionally substituted cycloalkyl, phenyl or benzyl,

R³, R⁴ and R⁵ independently of one another represent in each case optionally halogen-substituted alkyl, alkoxy, alkylamino, dialkylamino, alkylthio, alkenylthio or

cycloalkylthio or represent in each case optionally substituted phenyl, benzyl, phenoxy or phenylthio,

5 R^6 and R^7 independently of one another represent hydrogen, represent in each case optionally halogen-substituted alkyl, cycloalkyl, alkenyl, alkoxy, alkoxyalkyl, represent in each case optionally substituted phenyl or benzyl or together with the N atom to which they are attached form an optionally substituted cycle which optionally contains oxygen or sulphur,

A represents hydrogen, represents in each case optionally halogen-substituted alkyl, alkenyl, alkoxyalkyl or alkylthioalkyl or represents optionally substituted cycloalkyl,

10 B represents hydrogen, alkyl or alkoxyalkyl,

D represents hydrogen or represents an optionally substituted radical from the group consisting of alkyl, alkenyl, alkynyl, alkoxyalkyl, alkylthioalkyl, or optionally substituted cycloalkyl,

15 A and D together with the atoms to which they are attached, represent a saturated or unsaturated cycle which optionally contains at least one heteroatom and which is unsubstituted or substituted in the A,D moiety,

and, if

G represents hydrogen (a), then

A represents hydrogen or alkyl,

20 B represents hydrogen or alkyl,

D represents an optionally substituted radical from the group consisting of alkyl, alkenyl, alkynyl, alkoxyalkyl, alkylthioalkyl, or optionally substituted cycloalkyl, or

25 A and D together with the atoms to which they are attached represent a saturated or unsaturated cycle which optionally contains at least one heteroatom and which is unsubstituted or substituted in the A,D moiety.

2. Compounds of the formula (I) according to Claim 1 in which, if

G represents hydrogen (a), then

A represents hydrogen or C₁-C₈-alkyl,

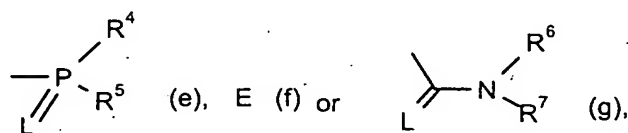
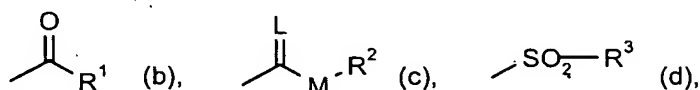
B represents hydrogen or C₁-C₆-alkyl,

D represents C₁-C₈-alkyl, C₁-C₈-alkenyl, C₁-C₆-alkoxy-C₂-C₄-alkyl or C₁-C₆-alkylthio-C₂-C₄-alkyl, each of which is optionally mono- to pentasubstituted by halogen, represents C₃-C₈-Cycloalkyl which is optionally mono- to trisubstituted by halogen, C₁-C₄-alkyl, C₁-C₄-alkoxy or C₁-C₂-haloalkyl,

A and D together represent a C₃-C₆-alkanediyl or C₃-C₆-alkenediyl group in which in each case optionally one methylene group is replaced by oxygen or sulphur and which are in each case optionally mono- or disubstituted by halogen, hydroxyl, C₁-C₄-alkyl or C₁-C₄-alkoxy, or by a further C₃-C₆-alkanediyl, C₃-C₆-alkenediyl or C₄-C₆-alkanedienediyl group which forms a fused-on ring,

and, if

G represents one of the groups



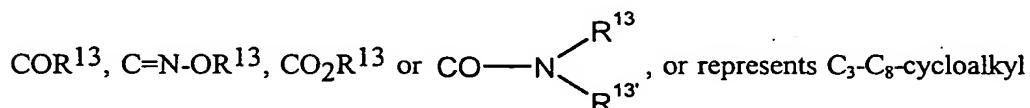
in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R¹ represents C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkylthio-C₁-C₆-alkyl or poly-C₁-C₄-alkoxy-C₁-C₄-alkyl, each of which is optionally mono- to heptasubstituted by halogen, mono- or disubstituted by cyano, monosubstituted by



which is optionally mono- to trisubstituted by halogen, C₁-C₄-alkyl or C₁-C₄-alkoxy

and in which optionally one or two not directly adjacent methylene groups are replaced by oxygen and/or sulphur,

represents phenyl, phenyl-C₁-C₂-alkyl or phenyl-C₂-alkenyl, each of which is optionally mono- to trisubstituted by halogen, cyano, nitro, C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl or C₁-C₆-alkylsulfonyl,

represents 5- or 6-membered heteroaryl which is optionally mono- or disubstituted by halogen or C₁-C₆-alkyl and contains one or two heteroatoms from the group consisting of oxygen, sulphur and nitrogen,

R² represents C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₁-C₆-alkoxy-C₂-C₆-alkyl or poly-C₁-C₆-alkoxy-C₂-C₆-alkyl, each of which is optionally mono- to trisubstituted by halogen,

represents C₃-C₈-cycloalkyl which is optionally mono- or disubstituted by halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy or

represents phenyl or benzyl, each of which is optionally mono- to trisubstituted by halogen, cyano, nitro, C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkyl or C₁-C₆-haloalkoxy,

R³ represents C₁-C₈-alkyl which is optionally mono- or polysubstituted by halogen or represents phenyl or benzyl, each of which is optionally mono- or disubstituted by halogen, C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy, cyano or nitro,

R⁴ and R⁵ independently of one another represent C₁-C₈-alkyl, C₁-C₈-alkoxy, C₁-C₈-alkylamino, di(C₁-C₈-alkyl)amino, C₁-C₈-alkylthio or C₂-C₈-alkenylthio, each of which is optionally mono- to trisubstituted by halogen, or represent phenyl, phenoxy or phenylthio, each of which is optionally mono- to trisubstituted by halogen, nitro, cyano, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkylthio, C₁-C₄-alkyl or C₁-C₄-haloalkyl,

R⁶ and R⁷ independently of one another represent hydrogen, represent C₁-C₈-alkyl, C₃-C₈-cycloalkyl, C₁-C₈-alkoxy, C₃-C₈-alkenyl or C₁-C₈-alkoxy-C₂-C₈-alkyl, each of which is optionally mono- to trisubstituted by halogen, represent phenyl or benzyl, each of which is optionally mono- to trisubstituted by halogen, C₁-C₈-alkyl, C₁-C₈-haloalkyl or C₁-C₈-alkoxy or together represent a C₃-C₆-alkylene radical which is optionally

mono- or disubstituted by C₁-C₄-alkyl and in which optionally one methylene group is replaced by oxygen or sulphur,

5 R¹³ represents C₁-C₆-alkyl, C₃-C₆-alkenyl, C₃-C₆-alkynyl or C₁-C₄-alkoxy-C₂-C₄-alkyl, each of which is optionally mono- to trisubstituted by halogen, or represents C₃-C₆-cycloalkyl which is optionally mono- or disubstituted by halogen, C₁-C₂-alkyl or C₁-C₂-alkoxy and in which optionally one or two not directly adjacent methylene groups are replaced oxygen,

R^{13'} represents hydrogen, C₁-C₆-alkyl or C₃-C₆-alkenyl, then

10 A represents hydrogen, represents C₁-C₈-alkyl, C₂-C₈-alkenyl, C₁-C₆-alkoxy-C₁-C₄-alkyl or C₁-C₆-alkylthio-C₁-C₄-alkyl, each of which is optionally mono- to trisubstituted by halogen, represents C₃-C₈-cycloalkyl which is optionally mono- to trisubstituted by halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy,

B represents hydrogen, C₁-C₆-alkyl or C₁-C₄-alkoxy-C₁-C₂-alkyl,

15 D represents hydrogen, represents C₁-C₈-alkyl, C₁-C₈-alkenyl, C₁-C₆-alkoxy-C₂-C₄-alkyl or C₁-C₆-alkylthio-C₂-C₄-alkyl, each of which is optionally mono- to trisubstituted by halogen, represents C₃-C₈-cycloalkyl which is optionally mono- to trisubstituted by halogen, C₁-C₄-alkyl, C₁-C₄-alkoxy or C₁-C₂-haloalkyl, or

20 A and D together represent a C₃-C₆-alkanediyl or C₃-C₆-alkenediyl group in which in each case optionally one methylene group is replaced by oxygen or sulphur and which are in each case optionally mono- or disubstituted by halogen, hydroxyl, C₁-C₄-alkyl or C₁-C₄-alkoxy or by a further C₃-C₆-alkanediyl, C₃-C₆-alkenediyl or C₄-C₆-alkanedienediyl group which forms a fused-on ring.

3. Compounds of the formula (I) according to Claim 1, in which, if

G represents hydrogen (a), then

25 A represents hydrogen or C₁-C₆-alkyl,

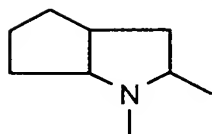
B represents hydrogen or C₁-C₄-alkyl,

D represents C₁-C₆-alkyl, C₃-C₆-alkenyl, C₁-C₄-alkoxy-C₂-C₃-alkyl or C₁-C₄-alkylthio-C₂-C₃-alkyl, each of which is optionally mono- to trisubstituted by

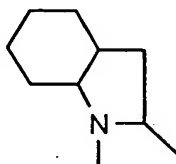
fluorine or chlorine, represents C_3 - C_6 -cycloalkyl which is optionally mono- or disubstituted by fluorine, chlorine, C_1 - C_2 -alkyl, C_1 - C_2 -alkoxy or trifluoromethyl, or

5 A and D together represent a C_3 - C_5 -alkanediyl group in which optionally one methylene group is replaced oxygen or sulphur and which is optionally mono- or disubstituted by C_1 - C_2 -alkyl or C_1 - C_2 -alkoxy,

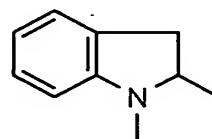
or A and D together with the atoms to which they are attached represent one of the groups AD-1 to AD-10



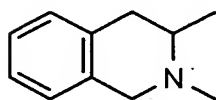
AD-1



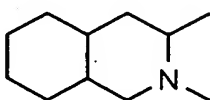
AD-2



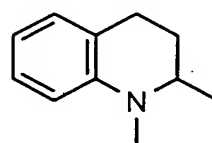
AD-3



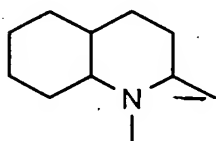
AD-4



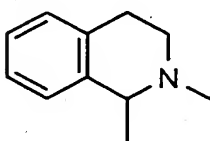
AD-5



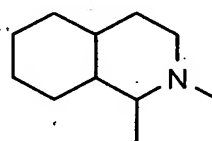
AD-6



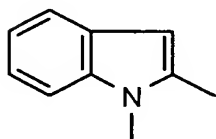
AD-7



AD-8



AD-9

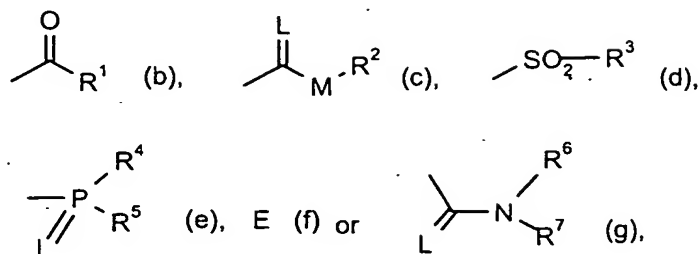


AD-10

and, if

10

G represents one of the groups



in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

5 M represents oxygen or sulphur,

10 R¹ represents C₁-C₁₀-alkyl, C₂-C₁₀-alkenyl, C₁-C₄-alkoxy-C₁-C₂-alkyl, poly-C₁-C₃-alkoxy-C₁-C₂-alkyl or C₁-C₄-alkylthio-C₁-C₂-alkyl, each of which is optionally mono- to pentasubstituted by fluorine or chlorine, monosubstituted by cyano or monosubstituted by CO-R¹³, C=N-OR¹³ or CO₂R¹³, or represents C₃-C₆-cycloalkyl which is optionally mono- or disubstituted by fluorine, chlorine, C₁-C₂-alkyl or C₁-C₂-alkoxy and in which optionally one or two not directly adjacent methylene groups are replaced by oxygen,

15 represents phenyl or benzyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, bromine, cyano, nitro, C₁-C₄-alkyl, C₁-C₄-alkylthio, C₁-C₄-alkylsulfinyl, C₁-C₄-alkylsulfonyl, C₁-C₄-alkoxy, C₁-C₂-haloalkyl or C₁-C₂-haloalkoxy,

represents pyrazolyl, thiazolyl, pyridyl, pyrimidyl, furanyl or thienyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, bromine or C₁-C₂-alkyl,

20 R² represents C₁-C₁₀-alkyl, C₂-C₁₀-alkenyl, C₁-C₄-alkoxy-C₂-C₄-alkyl or poly-C₁-C₄-alkoxy-C₂-C₄-alkyl, each of which is optionally mono- to trisubstituted by fluorine or chlorine,

represents C₃-C₇-cycloalkyl which is optionally monosubstituted by C₁-C₂-alkyl or C₁-C₂-alkoxy or

represents phenyl or benzyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, bromine, cyano, nitro, C₁-C₄-alkyl, methoxy, trifluoromethyl or trifluoromethoxy,

5 R³ represents C₁-C₄-alkyl which is optionally mono- to trisubstituted by fluorine or chlorine or represents phenyl or benzyl, each of which is optionally monosubstituted by fluorine, chlorine, bromine, C₁-C₄-alkyl, C₁-C₄-alkoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

10 R⁴ and R⁵ independently of one another represent C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-alkylamino, di(C₁-C₆-alkyl)amino, C₁-C₆-alkylthio or C₃-C₄-alkenylthio, each of which is optionally mono- to trisubstituted by fluorine or chlorine, or represent phenyl, phenoxy or phenylthio, each of which is optionally mono- or disubstituted by fluorine, chlorine, bromine, nitro, cyano, C₁-C₃-alkoxy, trifluoromethoxy, C₁-C₃-alkylthio, C₁-C₃-alkyl or trifluoromethyl,

15 R⁶ and R⁷ independently of one another represent hydrogen, represent C₁-C₆-alkyl, C₃-C₆-cycloalkyl, C₁-C₄-alkoxy, C₃-C₆-alkenyl or C₁-C₆-alkoxy-C₂-C₆-alkyl, each of which is optionally mono- to trisubstituted by fluorine or chlorine, represent phenyl which is optionally mono- or disubstituted by fluorine, chlorine, bromine, trifluoromethyl, C₁-C₄-alkyl or C₁-C₄-alkoxy or together represent a C₅-C₆-alkylene radical which is optionally mono- or disubstituted by methyl and in which
20 optionally one methylene group is replaced oxygen,

 R¹³ represents C₁-C₄-alkyl, C₃-C₄-alkenyl, C₃-C₄-alkynyl or C₁-C₄-alkoxy-C₂-C₃-alkyl or represents C₃-C₆-cycloalkyl in which optionally one methylene group is replaced by oxygen, then

25 A represents hydrogen, represents C₁-C₆-alkyl, C₂-C₆-alkenyl, C₁-C₄-alkoxy-C₁-C₃-alkyl or C₁-C₄-alkylthio-C₁-C₃-alkyl, each of which is optionally mono- to trisubstituted by fluorine or chlorine, or represents C₃-C₆-cycloalkyl which is optionally mono- or disubstituted by fluorine, chlorine, C₁-C₂-alkyl or C₁-C₂-alkoxy,

 B represents hydrogen, C₁-C₄-alkyl or C₁-C₄-alkoxy-C₁-C₂-alkyl,

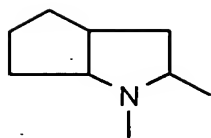
30 D represents hydrogen or

5 D also represents C_1 - C_6 -alkyl, C_3 - C_6 -alkenyl, C_1 - C_4 -alkoxy- C_2 - C_3 -alkyl or C_1 - C_4 -alkylthio- C_2 - C_3 -alkyl, each of which is optionally mono- to trisubstituted by fluorine or chlorine, represents C_3 - C_6 -cycloalkyl which is optionally mono- or disubstituted by fluorine, chlorine, C_1 - C_2 -alkyl, C_1 - C_2 -alkoxy or trifluoromethyl, with the proviso that in this case

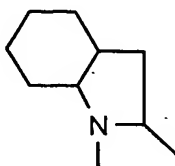
A only represents hydrogen or C_1 - C_3 -alkyl, or

A and D together represent a C_3 - C_5 -alkanediyl group in which optionally one methylene group is replaced by oxygen or sulphur and which is optionally mono- or disubstituted by C_1 - C_2 -alkyl or C_1 - C_2 -alkoxy,

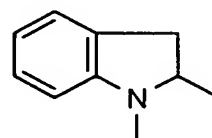
10 or A and D together with the atoms to which they are attached represent one of the groups AD-1 to AD-10



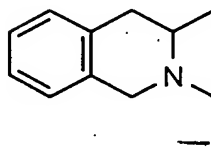
AD-1



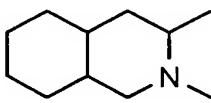
AD-2



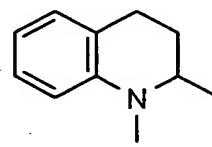
AD-3



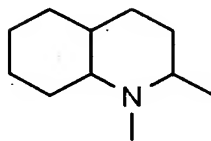
AD-4



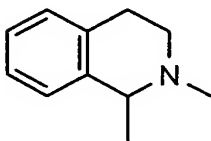
AD-5



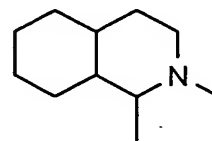
AD-6



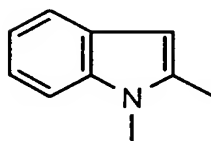
AD-7



AD-8



AD-9



AD-10.

4. Compounds of the formula (I) according to Claim 1 in which, if

G represents hydrogen (a), then

A represents hydrogen, methyl or ethyl,

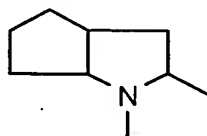
5 B represents hydrogen,

D represents methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, isobutyl, cyclopropyl, cyclopentyl or cyclohexyl, or

A and D together represent a C₃-C₄-alkanediyl group in which optionally one methylene group is replaced by oxygen or sulphur and which is optionally mono- or disubstituted by methyl,

10

or A and D together with the atoms to which they are attached represent the following group:

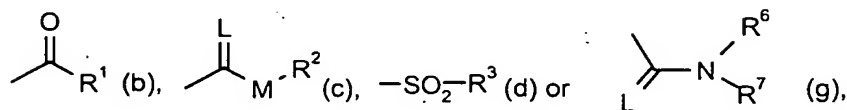


AD-1

15

and, if

G represents one of the groups



in which

L represent oxygen and

20

M represents oxygen or sulphur,

R¹ represents C₁-C₆-alkyl, C₂-C₆-alkenyl, C₁-C₂-alkoxy-C₁-C₂-alkyl, C₁-C₂-alkylthio-C₁-C₂-alkyl or poly-C₁-C₂-alkoxy-C₁-C₂-alkyl, each of which is optionally mono-

to trisubstituted by fluorine or chlorine, or represents cyclopropyl, cyclopentyl or cyclohexyl, each of which is optionally monosubstituted by fluorine, chlorine, methyl, ethyl or methoxy,

5 represents phenyl which is optionally monosubstituted by fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, n-propyl, isopropyl, methoxy, ethoxy, methylthio, ethylthio, methylsulfinyl, ethylsulfinyl, methylsulfonyl, ethylsulfonyl, trifluoromethyl or trifluoromethoxy,

represents furanyl, thienyl or pyridyl, each of which is optionally monosubstituted by chlorine, bromine or methyl,

10 R^2 represents C_1 - C_8 -alkyl, C_2 - C_6 -alkenyl or C_1 - C_3 -alkoxy- C_2 - C_3 -alkyl, cyclopentyl or cyclohexyl,

or represents phenyl or benzyl, each of which is optionally monosubstituted by fluorine, chlorine, bromine, cyano, nitro, methyl, methoxy, trifluoromethyl or trifluoromethoxy,

15 R^3 represents C_1 - C_4 -alkyl which is optionally mono- to trisubstituted by fluorine or chlorine, or represents phenyl or benzyl, each of which is optionally monosubstituted by fluorine, chlorine, bromine, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

20 R^6 represents hydrogen, represents C_1 - C_4 -alkyl, C_3 - C_6 -cycloalkyl or allyl, represents phenyl which is optionally monosubstituted by fluorine, chlorine, bromine, methyl, methoxy or trifluoromethyl,

R^7 represents methyl, ethyl, n-propyl, isopropyl or allyl,

R^6 and R^7 together represent a C_5 - C_6 -alkylene radical in which optionally one methylene group is replaced by oxygen, then

25 A represents hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, trifluoromethyl, cyclopropyl, cyclopentyl or cyclohexyl,

B represents hydrogen, methyl or ethyl,

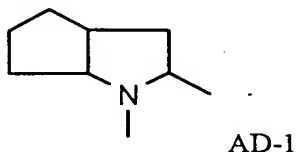
D represents hydrogen or

D also represents methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, isobutyl, cyclopropyl, cyclopentyl or cyclohexyl, with the proviso that in this case

A only represents hydrogen, methyl or ethyl,

5 A and D together represent a C₃-C₄-alkanediyl group in which optionally one methylene group is replaced by oxygen or sulphur and which is optionally mono- or disubstituted by methyl, or

A and D together with the atoms to which they are attached represent the group below:



10 5. Compounds of the formula (I) according to Claim 1 in which, if

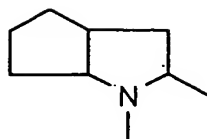
G represents hydrogen (a), then

A represents hydrogen, methyl or ethyl,

B represents hydrogen,

D represents methyl, ethyl or cyclopropyl, or

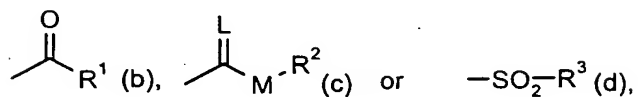
15 A and D together with the atoms to which they are attached represent the group below:



AD-1

and, if

- 5 G represents one of the groups



in which

L represents oxygen and

M represents oxygen,

- 10 R^1 represents C_1 - C_6 -alkyl or C_1 - C_2 -alkoxy- C_1 - C_2 -alkyl,

R^2 represents C_1 - C_8 -alkyl,

R^3 represents C_1 - C_4 -alkyl,

then

A represents hydrogen, methyl, ethyl, n-propyl, isopropyl or isobutyl,

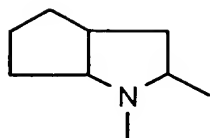
- 15 B represents hydrogen, methyl or ethyl,

D represents hydrogen or

D also represents methyl, ethyl or cyclopropyl, with the proviso that in this case

A only represents hydrogen, methyl or ethyl,

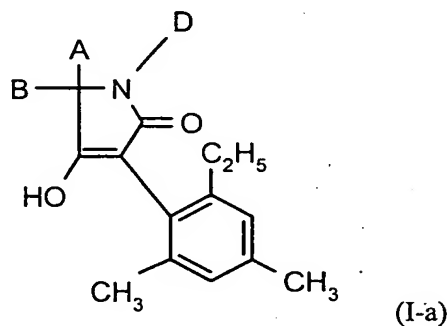
A and D together with the atoms to which they are attached represent the group below:



AD-1

6. Process for preparing compounds of formula (I) according to Claim 1, characterized in that, to obtain

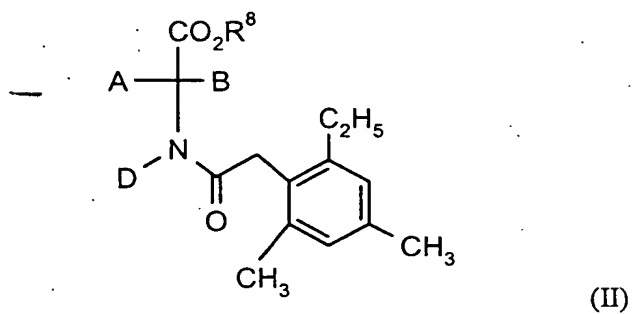
(A) compounds of the formula (I-a),



in which

A, B and D are as defined above,

compounds of the formula (II),



in which

A, B and D are as defined above,

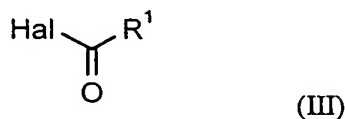
and

R⁸ represents alkyl,

are condensed intramolecularly in the presence of diluent and in the presence of a base,

- (B) compounds of the formula (I-b), in which A, B, D and R¹ are as defined above, compounds of the formula (I-a) shown above or of the formula (I-a') shown on p. 10 in which A, B and D are in each case as defined above, are reacted

- α) with acid halides of the formula (III),



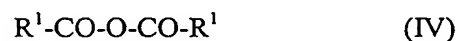
in which

R¹ is as defined above and

Hal represents halogen,

or

- β) with carboxylic anhydrides of the formula (IV),



in which

R¹ is as defined above,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid binder,

- (C) compounds of the formula (I-c) shown above in which A, B, D, R² and M are as defined above and L represents oxygen, compounds of the formula (I-a) shown above or formula (I-a') shown on p. 10 in which A, B and D are in each case as defined above, are in each case reacted

with chloroformic esters or chloroformic thioesters of the formula (V),



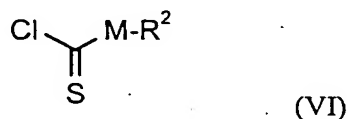
in which

R^2 and M are as defined above,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid binder,

- 5 (D) compounds of the formula (I-c) shown above in which A, B, D, R^2 and M are as defined above and L represents sulphur, compounds of the formula (I-a) shown above or of the formula (I-a') shown on p. 10 in which A, B and D are in each case as defined above are in each case reacted

- α) with chloromonothioformic esters or chlorodithioformic esters of the formula (VI),



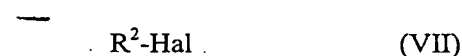
10 in which

M and R^2 are as defined above,

if appropriate in the presence of diluent and if appropriate in the presence of an acid binder,

or

- 15 β) with carbon disulphide and then with compounds of the formula (VII),



in which

R^2 is as defined above and

Hal represents chlorine, bromine or iodine,

20 if appropriate in the presence of a diluent and if appropriate in the presence of a base,

- (E) compounds of the formula (I-d), in which A, B, D and R^3 are as defined above, compounds of the formula (I-a) shown above or of the formula (I-a') shown on p. 10 in which A, B and D are in each case as defined above are in each case reacted

with sulfonyl chlorides of the formula (VIII),



in which

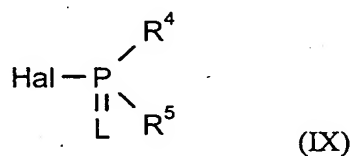
R^3 is as defined above,

5 if appropriate in the presence of a diluent and if appropriate in the presence of an acid binder,

(F) compounds of the formula (I-e), in which A, B, D, L, R^4 and R^5 are as defined above, compounds of the formula (I-a) shown above or of the formula (I-a') shown on p. 10 in which A, B and D are in each case as defined above are in each case reacted

10

with phosphorus compounds of the formula (IX),



in which

L, R^4 and R^5 are as defined above and

15

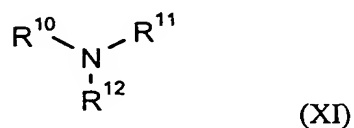
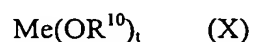
Hal represents halogen,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid binder,

(G) compounds of the formula (I-f) shown above in which A, B, D and E are as defined above, compounds of the formula (I-a) shown above or of the formula (I-a') shown on p. 10 in which A, B and D are as defined above are in each case reacted

20

with metal compounds or amines of the formulae (X) or (XI), respectively,



in which

Me represents a mono- or divalent metal,

t represents the number 1 or 2 and

R^{10} , R^{11} , R^{12} independently of one another represent hydrogen or alkyl,

5 if appropriate in the presence of a diluent,

(H) compounds of the formula (I-g) shown above in which A, B, D, L, R^6 and R^7 are as defined above, compounds of the formula (I-a) shown above or of the formula (I-a') shown on p. 10 in which A, B and D are as defined above are in each case reacted

10 $\alpha)$ with isocyanates or isothiocyanates of the formula (XII),

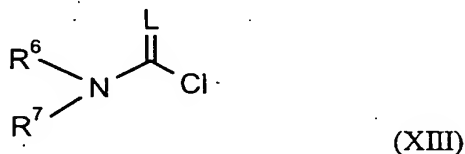


in which

R^6 and L are as defined above,

15 if appropriate in the presence of a diluent and if appropriate in the presence of a catalyst, or

$\beta)$ with carbamoyl chlorides or thiocarbamoyl chlorides of the formula (XIII),



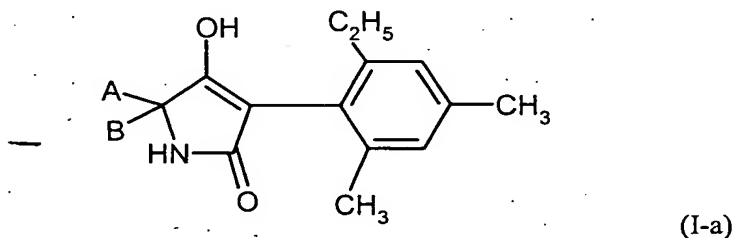
in which

L, R^6 and R^7 are as defined above,

20 if appropriate in the presence of a diluent and if appropriate in the presence of an acid binder.

7. Use of compounds of the formula (I) according to Claim 1 for preparing pesticides and/or herbicides.

8. Pesticides and/or herbicides, characterized in that they comprise at least one compound of the formula (I) according to Claim 1.
9. Method for controlling animal pests and/or unwanted vegetation, characterized in that compounds of the formula (I) according to Claim 1 are allowed to act on pests and/or their habitat.
10. Use of compounds of the formula (I) according to Claim 1 for controlling animal pests and/or unwanted vegetation.
11. Process for preparing pesticides and/or herbicides, characterized in that compounds of the formula (I) according to Claim 1 are mixed with extenders and/or surfactants.
- 10 - 12. Composition, comprising an effective amount of a combination of active compounds comprising
 - a') at least one substituted cyclic ketoenol of the formula (I) according to Claim 1, in which A, B, D and G are as defined above
 - or
 - 15 b') at least one substituted cyclic ketoenol of the formula (I-a)



in which

A and B are as defined above and

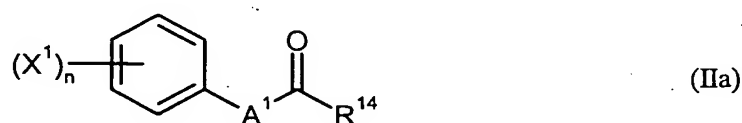
- c') at least one crop plant compatibility-improving compound from the following group of compounds:

4-dichloroacetyl-1-oxa-4-azaspiro[4.5]decane (AD-67, MON-4660), 1-dichloroacetyl-hexahydro-3,3,8a-trimethylpyrrolo[1,2-a]pyrimidin-6(2H)-one (dicyclonon, BAS-145138), 4-dichloroacetyl-3,4-dihydro-3-methyl-2H-1,4-benzoxazine (benoxacor), 1-methylhexyl 5-chloroquinoline-8-oxyacetate (cloquintocet-mexyl - cf. also related compounds in

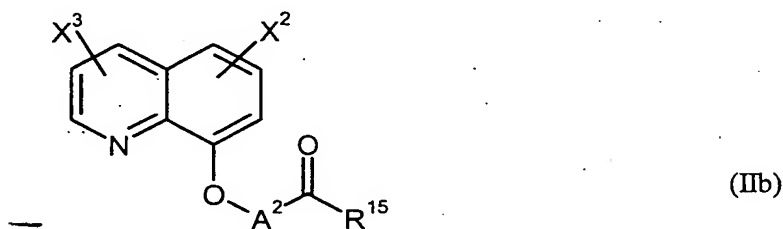
EP-A-86750, EP-A-94349, EP-A-191736, EP-A-492366), 3-(2-chlorobenzyl)-1-(1-methyl-
 1-phenylethyl)urea (cumyluron), α -(cyanomethoximino)phenylacetone nitrile (cyometrinil),
 2,4-dichlorophenoxyacetic acid (2,4-D), 4-(2,4-dichlorophenoxy)butyric acid (2,4-DB),
 1-(1-methyl-1-phenylethyl)-3-(4-methylphenyl)urea (daimuron, dymron), 3,6-dichloro-
 5 2-methoxybenzoic acid (dicamba), S-1-methyl 1-phenylethyl piperidine-1-thiocarboxylate
 (dimepiperate), 2,2-dichloro-N-(2-oxo-2-(2-propenylamino)ethyl)-N-(2-propenyl)-
 acetamide (DKA-24), 2,2-dichloro-N,N-di-2-propenylacetamide (dichlormid),
 4,6-dichloro-2-phenylpyrimidine (fencloir), ethyl 1-(2,4-dichlorophenyl)-5-trichloro-
 methyl-1H-1,2,4-triazole-3-carboxylate (fenchlorazole-ethyl - cf. also related compounds
 10 in EP-A-174562 and EP-A-346620), phenylmethyl 2-chloro-4-trifluoromethylthiazole-
 5-carboxylate (flurazole), 4-chloro-N-(1,3-dioxolan-2-ylmethoxy)- α -trifluoroacetophenone
 oxime (fluxofenim), 3-dichloroacetyl-5-(2-furanyl)-2,2-dimethyloxazolidine (furilazole,
 MON-13900), ethyl 4,5-dihydro-5,5-diphenyl-3-isoxazolecarboxylate (isoxadifen-ethyl -
 cf. also related compounds in WO-A-95/07897), 1-(ethoxycarbonyl)ethyl 3,6-dichloro-2-
 15 methoxybenzoate (lactidichlor), (4-chloro-o-tolyloxy)acetic acid (MCPA), 2-(4-chloro-o-
 tolyloxy)propionic acid (mecoprop), diethyl 1-(2,4-dichlorophenyl)-4,5-dihydro-5-methyl-
 1H-pyrazole-3,5-dicarboxylate (mefenpyr-diethyl - cf. also related compounds in WO-A-
 91/07874), 2-dichloromethyl-2-methyl-1,3-dioxolane (MG-191), 2-propenyl 1-oxa-4-
 azaspiro[4.5]decane-4-carbodithioate (MG-838), 1,8-naphthalic anhydride, α -(1,3-
 20 dioxolan-2-ylmethoximino)phenylacetone nitrile (oxabetrinil), 2,2-dichloro-N-(1,3-dioxolan-
 2-ylmethyl)-N-(2-propenyl)acetamide (PPG-1292), 3-dichloroacetyl-2,2-
 dimethyloxazolidine (R-28725), 3-dichloroacetyl-2,2,5-trimethyloxazolidine (R-29148), 4-
 (4-chloro-o-tolyl)butyric acid, 4-(4-chlorophenoxy)butyric acid, diphenylmethoxyacetic
 acid, methyl diphenylmethoxyacetate, ethyl diphenylmethoxyacetate, methyl 1-(2-
 25 chlorophenyl)-5-phenyl-1H-pyrazole-3-carboxylate, ethyl 1-(2,4-dichlorophenyl)-5-
 methyl-1H-pyrazole-3-carboxylate, ethyl 1-(2,4-dichlorophenyl)-5-isopropyl-1H-pyrazole-
 3-carboxylate, ethyl 1-(2,4-dichlorophenyl)-5-(1,1-dimethylethyl)-1H-pyrazole-3-
 carboxylate, ethyl 1-(2,4-dichlorophenyl)-5-phenyl-1H-pyrazole-3-carboxylate (cf. also
 related compounds in EP-A-269806 and EP-A-333131), ethyl 5-(2,4-dichlorobenzyl)-2-
 30 isoxazoline-3-carboxylate, ethyl 5-phenyl-2-isoxazoline-3-carboxylate, ethyl 5-(4-
 fluorophenyl)-5-phenyl-2-isoxazoline-3-carboxylate (cf. also related compounds in WO-A-
 91/08202), 1,3-dimethylbut-1-yl 5-chloroquinoline-8-oxyacetate, 4-allyloxybutyl
 5-chloroquinoline-8-oxyacetate, 1-allyloxyprop-2-yl 5-chloroquinoline-8-oxyacetate,
 methyl 5-chloroquinoxaline-8-oxyacetate, ethyl 5-chloroquinoline-8-oxyacetate, allyl
 35 5-chloroquinoxaline-8-oxyacetate, 2-oxoprop-1-yl 5-chloroquinoline-8-oxyacetate, diethyl
 5-chloroquinoline-8-oxymalonate, diallyl 5-chloroquinoxaline-8-oxymalonate, diethyl

5-chloroquinoline-8-oxymalonate (cf. also related compounds in EP-A-582198),
 4-carboxychroman-4-ylacetic acid (AC-304415, cf. EP-A-613618), 4-chlorophenoxyacetic
 acid, 3,3'-dimethyl-4-methoxybenzophenone, 1-bromo-4-chloromethylsulphonylbenzene,
 1-[4-(N-2-methoxybenzoylsulphamoyl)phenyl]-3-methylurea (also known as N-(2-
 5 methoxybenzoyl)-4-[(methylaminocarbonyl)amino]benzenesulphonamide), 1-[4-(N-2-
 methoxybenzoylsulphamoyl)phenyl]-3,3-dimethylurea, 1-[4-(N-4,5-dimethylbenzoyl-
 sulphamoyl)phenyl]-3-methylurea, 1-[4-(N-naphthylsulphamoyl)phenyl]-3,3-dimethylurea,
 N-(2-methoxy-5-methylbenzoyl)-4-(cyclopropylaminocarbonyl)benzenesulphonamide,

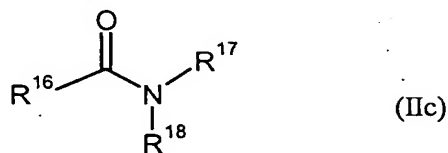
10 and/or one of the following compounds, defined by general formulae, of the general
 formula (IIa)



or of the general formula (IIb)



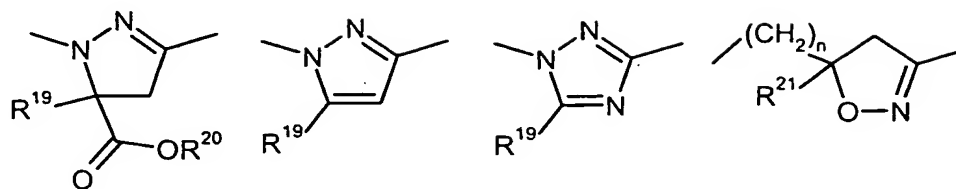
15 or of the formula (IIc)



where

n represents a number from 0 to 5,

A¹ represents one of the divalent heterocyclic groupings shown below,



n represents a number between 0 and 5,

A² represents optionally C₁-C₄-alkyl- and/or C₁-C₄-alkoxycarbonyl-substituted alkanediyl having 1 or 2 carbon atoms,

5 R¹⁴ represents hydroxyl, mercapto, amino, C₁-C₆-alkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylamino or di-(C₁-C₄-alkyl)amino,

R¹⁵ represents hydroxyl, mercapto, amino, C₁-C₇-alkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylamino or di-(C₁-C₄-alkyl)-amino,

10 R¹⁶ represents in each case optionally fluorine-, chlorine- and/or bromine-substituted C₁-C₄-alkyl,

R¹⁷ represents hydrogen, in each case optionally fluorine-, chlorine- and/or bromine-substituted C₁-C₆-alkyl, C₂-C₆-alkenyl or C₂-C₆-alkynyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, dioxolanyl-C₁-C₄-alkyl, furyl, furyl-C₁-C₄-alkyl, thienyl, thiazolyl, piperidinyl, or optionally fluorine-, chlorine- and/or bromine- or C₁-C₄-alkyl-substituted phenyl,

15 R¹⁸ represents hydrogen, in each case optionally fluorine-, chlorine- and/or bromine-substituted C₁-C₆-alkyl, C₂-C₆-alkenyl or C₂-C₆-alkynyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, dioxolanyl-C₁-C₄-alkyl, furyl, furyl-C₁-C₄-alkyl, thienyl, thiazolyl, piperidinyl, or optionally fluorine-, chlorine- and/or bromine- or C₁-C₄-alkyl-substituted phenyl, or together with R¹⁷ represents C₃-C₆-alkanediyl or C₂-C₅-oxaalkanediyl, each of which
20 is optionally substituted by C₁-C₄-alkyl, phenyl, furyl, a fused benzene ring or by two substituents which, together with the C atom to which they are attached, form a 5- or 6-membered carbocycle,

R¹⁹ represents hydrogen, cyano, halogen, or represents in each case optionally fluorine-, chlorine- and/or bromine-substituted C₁-C₄-alkyl, C₃-C₆-cycloalkyl or phenyl,

25 R²⁰ represents hydrogen, optionally hydroxyl-, cyano-, halogen- or C₁-C₄-alkoxy-substituted C₁-C₆-alkyl, C₃-C₆-cycloalkyl or tri(C₁-C₄-alkyl)silyl,

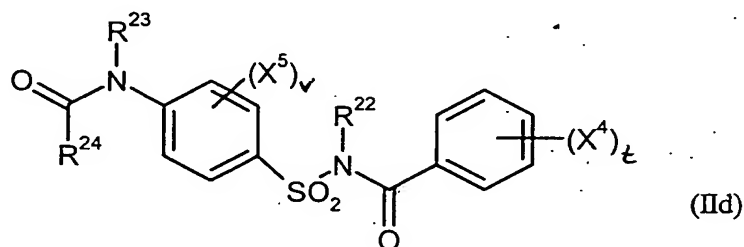
R^{21} represents hydrogen, cyano, halogen, or represents in each case optionally fluorine-, chlorine- and/or bromine-substituted C_1 - C_4 -alkyl, C_3 - C_6 -cycloalkyl or phenyl,

X^1 represents nitro, cyano, halogen, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl, C_1 - C_4 -alkoxy or C_1 - C_4 -haloalkoxy,

5 X^2 represents hydrogen, cyano, nitro, halogen, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl, C_1 - C_4 -alkoxy or C_1 - C_4 -haloalkoxy,

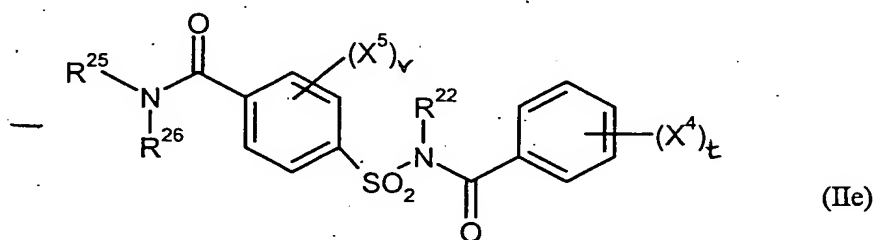
X^3 represents hydrogen, cyano, nitro, halogen, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl, C_1 - C_4 -alkoxy or C_1 - C_4 -haloalkoxy,

and/or the following compounds, defined by general formulae, of the general formula (II_d)



10

or of the general formula (II_e)



where

t represents the number 0, 1, 2, 3, 4 or 5,

v represents the number 0, 1, 2, 3, 4 or 5,

15 R^{22} represents hydrogen or C_1 - C_4 -alkyl,

R^{23} represents hydrogen or C_1 - C_4 -alkyl,

R^{24} represents hydrogen, in each case optionally cyano-, halogen- or C_1 - C_4 -alkoxy-substituted C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, C_1 - C_6 -alkylthio, C_1 - C_6 -alkylamino or di- $(C_1$ - C_4 -alkyl)amino, or in each case optionally cyano-, halogen- or C_1 - C_4 -alkyl-

substituted C₃-C₆-cycloalkyl, C₃-C₆-cycloalkyloxy, C₃-C₆-cycloalkylthio or C₃-C₆-cycloalkylamino,

R²⁵ represents hydrogen, optionally cyano-, hydroxyl-, halogen- or C₁-C₄-alkoxy-substituted C₁-C₆-alkyl, in each case optionally cyano- or halogen-substituted C₃-C₆-alkenyl or C₃-C₆-alkynyl, or optionally cyano-, halogen- or C₁-C₄-alkyl-substituted C₃-C₆-cycloalkyl,

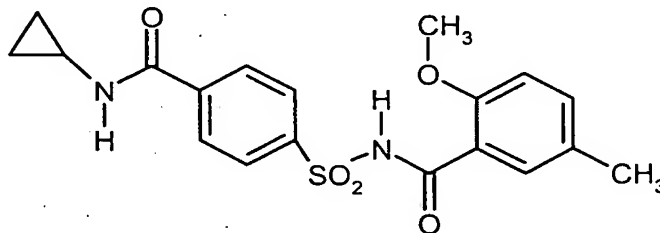
R²⁶ represents hydrogen, optionally cyano-, hydroxyl-, halogen- or C₁-C₄-alkoxy-substituted C₁-C₆-alkyl, in each case optionally cyano- or halogen-substituted C₃-C₆-alkenyl or C₃-C₆-alkynyl, optionally cyano-, halogen- or C₁-C₄-alkyl-substituted C₃-C₆-cycloalkyl, or optionally nitro-, cyano-, halogen-, C₁-C₄-alkyl-, C₁-C₄-haloalkyl, C₁-C₄-alkoxy- or C₁-C₄-haloalkoxy-substituted phenyl, or together with R²⁵ represents in each case optionally C₁-C₄-alkyl-substituted C₂-C₆-alkanediyl or C₂-C₅-oxaalkanediyl,

X⁴ represents nitro, cyano, carboxyl, carbamoyl, formyl, sulphamoyl, hydroxyl, amino, halogen, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy or C₁-C₄-haloalkoxy, and

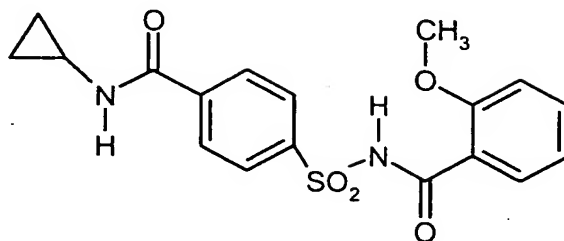
X⁵ represents nitro, cyano, carboxyl, carbamoyl, formyl, sulphamoyl, hydroxyl, amino, halogen, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy or C₁-C₄-haloalkoxy.

13. Composition according to Claim 12, where the crop plant compatibility-improving compound is selected from the following group of compounds:

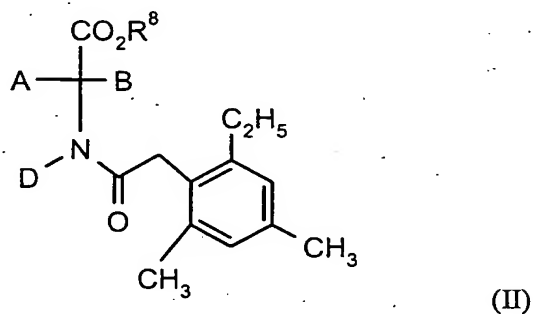
cloquintocet-mexyl, fenchlorazole-ethyl, isoxadifen-ethyl, mefenpyr-diethyl, furilazole, fenclorim, cumyluron, dymron or the compounds



and



14. Composition according to Claim 12 or 13 where the crop plant compatibility-improving compound is cloquintocet-mexyl or mefenpyr-diethyl.
- 5 15. Method for controlling unwanted vegetation, characterized in that a composition according to Claim 12 is allowed to act on the plants or their habitat.
16. Use of a composition according to Claim 12 for controlling unwanted vegetation.
17. Compounds of the formula (II)

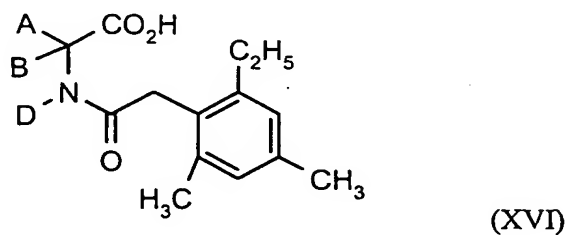


10 in which

A, B, D, and R^8 are as defined above,

where D may not represent hydrogen.

18. Compounds of the formula (XVI)



15 in which

A, B and D are as defined above,

where D may not represent hydrogen.

19. Process for preparing 2-ethyl-4,6-dimethylphenylacetic acid, characterized in that 2-ethyl-4,6-dimethylbromobenzene and tert-butyl acetate are reacted, if appropriate in the presence of a base, a phosphine ligand, a palladium compound and a diluent, and subsequently reacted with an acid.
- 5